Contents

Volume 18, Number 1 **1982**

ARTICLES

Integral Membrane Glycoproteins Related to Cell–Substratum Adhesion in Mammalian Cells, **Caroline H. Damsky, Karen A. Knudsen, and Clayton A. Buck** 1

Growth of Human T Lymphocyte Colonies From Whole Blood: Culture Requirements and Applications, **S.J. Knox, F.D. Wilson, B.R. Greenberg, and M. Shifrine** 15

Deposition of Basement Membrane Proteins in Attachment and Neurite Formation of Cultured Murine C-1300 Neuroblastoma Cells, **K. Alitalo, M. Kurkinen, I. Virtanen, K. Mellström, and A. Vaheri** 25

Separation of Glycopeptides by High Performance Liquid Chromatography, **Marsha Rich Rosner and Phillips W. Robbins** 37

Further Characterization of the Aggregation and Fusion of Chromaffin Granules by Synexin as a Model for Compound Exocytosis, **Carl E. Creutz, Janet H. Scott, Christopher J. Pazoles, and Harvey B. Pollard** 87

Differential Reactivation of Zinc-Mediated Metallothionein Induction in Ultraviolet-Irradiated Normal and Repair-Deficient Human Cells, **C.E. Hildebrand and G.F. Strniste** 121

INVITED REVIEWS

The Molecular Basis for Membrane–Cytoskeleton Association in Human Erythrocytes, **Vann Bennett** 49

The Phosphomannosyl Recognition System for Intracellular and Intercellular Transport of Lysosomal Enzymes, **William S. Sly and H. David Fischer** 67

Studies on the Mechanisms Involved in Multistage Carcinogenesis in Mouse Skin, **T.J. Slaga, S.M. Fischer, C.E. Weeks, A.J.P. Klein-Szanto, and J. Reiners** 99

Volume 18, Number 2 **1982**

ARTICLES

Metabolism of Benzo(a)pyrene by Human Epithelial and Fibroblastic Cells: Metabolite Patterns and DNA Adduct Formation, **Jack Bartley, James C. Bartholomew, and Martha R. Stampfer** 135

Expression of Adhesion-Related Membrane Components in Adherent Versus Nonadherent Hamster Melanoma Cells, **Karen A. Knudsen, Caroline H. Damsky, and Clayton A. Buck** 157

Immunochemical Analysis of Discoidins I and II at the Cell Surface in Wild Type and Aggregation-Defective Mutants of Dictyostelium discoideum, **D. Randall Armant and Edward A. Berger** 169

Dictyostelium Chemotactic Response to Spatial and Temporal Gradients. Theories of the Limits of Chemotactic Sensitivity and of Pseudochemotaxis, **R.P. Futrelle** 197

Alpha-Adrenergic Stimulation of Phosphatidylinositol Synthesis in Human Platelets as an Alpha-2 Effect Secondary to Platelet Aggregation, **Michael A. Wallace, Kailash C. Agarwal, J. Adolfo Garcia-Sainz, and John N. Fain** 213

Monoclonal Antibodies Which Alter the Morphology of Cultured Chick Myogenic Cells, **Jeffrey M. Greve and David I. Gottlieb** 221

Evidence for the Functional Association of Enzyme I and HPr of the Phosphoenolpyruvate-Sugar Phosphotransferase System With the Membrane in Sealed Vesicles of Escherichia coli, **Milton H. Saier, Jr., David F. Cox, Brigette U. Feucht, and Michael J. Novotny** 231

Regulation of Lactose Transport by the Phosphoenolpyruvate-Sugar Phosphotransferase System in Membrane Vesicles of Escherichia coli, **Steven S. Dills, Mary R. Schmidt, and Milton H. Saier, Jr.** 239

Purification and Characterization of a Major Cell Surface Glycoprotein in Zajdela Ascites Hapatoma Cells Which Displays a Potent Concanavalin A Receptor Activity, **Farida Nato and Roland Bourrillon** 245

INVITED REVIEWS

Carcinogen-Mediated Amplification of Specific DNA Sequences, **Sara Lavi** 149

Chemotactic Receptors of Dictyostelium discoideum, **William A. Frazier, S.G. Nandini-Kishore, and Beth L. Meyers** 181

Volume 18, Number 3 **1982**

ARTICLES

Responses of Preneoplastic Epidermal Cells to Tumor Promoters and Growth Factors: Use of Promoter-Resistant Variants for Mechanism Studies, **Nancy H. Colburn, Edmund Wendel, and Leela Srinivas** 261

In Vitro Reconstitution of Chromaffin Granule–Cytoskeleton Interactions: Ionic Factors Influencing the Association of F-Actin With Purified Chromaffin Granule Membranes, **Velia M. Fowler and Harvey B. Pollard** 295

Function of the Carbohydrate Moieties of Glycoproteins, **Kenneth Olden, Bruno A. Bernard, Sandra L. White, and J. Brian Parent** 313

A Common Role for Target Cell Histocompatibility Antigens in Both Nonspecific and Specific T Lymphocyte-Mediated Cytolysis, **Gideon Berke, Valerie Hu, Ella McVey, and William Clark** 337

Changes in the Expression of Membrane Antigens During the Differentiation of Chicken Erythroblasts, **Michael J. Hayman, Hartmut Beug, and Keith W. Savin** 351

Structural Characteristics of the Short-Tail Fibers of T4 Bacteriophage, **Jorge Zorzopulos, Sara DeLong, Virginia Chapman, and Lloyd M. Kozloff** 363

Effects of Divalent Cations, Trypsin, and Phospholipases on the Passive Permeability to Sodium of Inside-Out Vesicles From Human Red Cells, **Robert A. Colvin and James W. Green** 377

INVITED REVIEWS

Repair Responses to DNA Damage: Enzymatic Pathways in E coli and Human Cells, **Philip C. Hanawalt, Priscilla K. Cooper, Ann K. Ganesan, R. Stephen Lloyd, Charles A. Smith, and Miriam E. Zolan** 271

Differences in Metabolism of Chemical Carcinogens in Cultured Human Epithelial Tissues and Cells, **Curtis C. Harris, Benjamin F. Trump, Roland Grafstrom, and Herman Autrup** 285

Erratum. Repair of Bleomycin-Damaged DNA by Human Fibroblasts, **Myra M. Hurt, Arthur L. Beaudet, and Robb E. Moses.** Journal of Supramolecular Structure and Cellular Biochemistry 16:303–309 (1981) 393

Volume 18, Number 4 **1982**

ARTICLES

The Role of Regulatory Components From Resident T Lymphocytes in Polyclonal B Cell Activation, **Michael G. Goodman and William O. Weigle** 395

Occluding Junctions in MDCK Cells: Modulation of Transepithelial Permeability by the Cytoskeleton, **Isaura Meza, Myrna Sabanero, Enrique Stefani, and Marcelino Cereijido** 407

Inhibition by Glucocorticoids of Endocytosis in a Macrophage-Like Cell Line, **Steven C. Miller and George Melnykovych** 423

Mitogenicity of Brain Axolemma Membranes and Soluble Factors for Dorsal Root Ganglion Schwann Cells, **Dan Cassel, Patrick M. Wood, Richard P. Bunge, and Luis Glaser** 433

Brain Ligatin: A Membrane Lectin That Binds Acetylcholinesterase, **S.M. Gaston, Richard B. Marchase, and E.R. Jakoi** 447

A Possible Role for Ligatin and the Phosphoglycoproteins It Binds in Calcium-Dependent Retinal Cell Adhesion, **Richard B. Marchase, Lillian A. Koro, Charles M. Kelly, and David R. McClay** 461

Calcium-Dependent and Calcium-Independent Adhesive Mechanisms Are Present During Initial Binding Events of Neural Retina Cells, **David R. McClay and Richard B. Marchase** 469

Spectrin Domains: Proteolytic Susceptibility as a Probe of Protein Structure, **David W. Speicher and Vincent T. Marchesi** 479

The Polymeric State of Actin in the Human Erythrocyte Cytoskeleton, **Mark A.L. Atkinson, Jon S. Morrow, and Vincent T. Marchesi** 493

Benzo(a)pyrene-Binding Proteins of Hamster Embryo Cell Nuclei: Comparison of Nuclear Isolation Procedures, **Michael C. MacLeod, Betty K. Mansfield, and James K. Selkirk** 507

INVITED REVIEW

Inhibition of Neoplastic Cell Growth by Quiescent Cells Is Mediated by Serum Concentration and cAMP Phosphodiesterase Inhibitors, **John S. Bertram, Barbara B. Bertram, and Przemyslaw Janik** 515

Author Index to Volume 18 539

Subject Index to Volume 18 541